



National Aeronautics and Space Administration
Goddard Space Flight Center

Wallops Flight Facility, Wallops Island, Virginia

Inside Wallops

Volume XIX-99

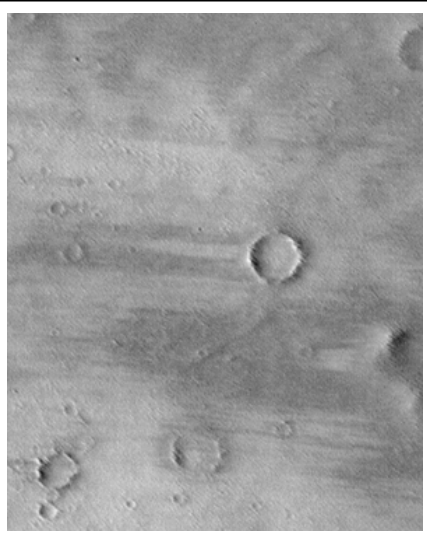
Number 13

April 5, 1999

Deployed Antenna Sending New Mars Images

A steady stream of new data from Mars, including high-resolution images, will begin arriving this week at Earth receiving stations following the deployment of the Mars Global Surveyor's high-power communications antenna.

"Up until now, we have been using the high-gain antenna in its stowed position. Periodically during the first three weeks of our mapping mission, we had to stop collecting science data and turn the entire spacecraft to transmit data to Earth," said Joseph Beerer, flight operations manager for Mars Global Surveyor at NASA's Jet Propulsion Laboratory. "Now that the high-gain antenna is deployed and steerable, we have the ability to simultaneously study Mars and communicate with Earth."



Wind streaks on Daedalia Planum. Photo from the Mars Orbiter camera.

The antenna was deployed at about midnight EST, March 28. It had been stowed since launch in November 1996 to reduce its chances of being contaminated by exhaust from the spacecraft's main engine, which was fired periodically throughout the mission.

The spacecraft entered orbit around Mars in September 1997 and used a technique called aerobraking to gradually lower the spacecraft's altitude to the desired orbit for mapping.

The mapping mission began March 9; full-scale mapping was to begin April 4.

Because engineers were uncertain that a device intended to dampen the force of the deployment would work correctly, engineers used the antenna in its stowed configuration for the first three weeks of mapping. This allowed the team to meet the mission's minimum science objectives before risking the antenna deployment.

The dish-shaped high-gain antenna, 5 feet in diameter, was deployed on a 6.6-foot-long boom and pushed outward from the spacecraft by a powerful spring. The suspect dampening device worked as it should have, cushioning the force of the spring and limiting the speed of the deployment, similar to the automatic closer on a screen door.

With the antenna successfully deployed, Mars Global Surveyor will return a nearly constant stream of observations for the next two years.

Information from the science instruments is recorded 24 hours a day on solid state recorders on board the spacecraft. Once a day, during a 10-hour tracking pass over a Deep Space Network antenna, the data are transmitted to Earth.

In addition, every third day a second tracking pass is used to transmit data "live" at a very high rate directly to Earth without being put on the recorder. These data, which will contain high-resolution images of Mars, will be transmitted at rates between 40,000 and 80,000 bits per second.

Further information about the mission is available on the Internet at: <http://mars.jpl.nasa.gov/mgs/index.html>

Wallops Shorts.....

Sounding Rocket Launch

A Nike-Black Brant sounding rocket was successfully launched from the White Sands Missile Range, NM on March 28.

The experiment used an array of x-ray calorimeters with high energy resolution and high quantum efficiency to measure the spectrum of the diffuse x-ray emission from the interstellar medium over the energy range 0.07 to 1 KeV.

Dr. Dan McCammon of the University of Wisconsin was the principal investigator. Frank Lau, Sounding Rockets Program Office was the payload manager. The payload was successfully recovered.



Goddard Space Flight Center's 40th Anniversary Week

Community Day - May 2

Goddard Space Flight Center will host a Community Day at Greenbelt on May 2 to coincide with other 40th Anniversary activities. The schedule of events will include a Living in Space presentation; Goddard Jeopardy; a children's activities tent; Puppets in Space presentation; technology, Earth and space science presentations and tours of various buildings. Wallops also will be represented with displays from the different directorates.

40th Anniversary Symposium - May 3

NASA Administrator Dan Goldin and members of the Maryland Delegation have been invited to address the many Goddard achievements and their vision for Goddard's future. The afternoon session will feature Drs. Ed Weiler, Ghassem Asrar, John Mather and Jim Hansen. All former Center Directors have been invited to the activities that will include a reception hosted by the National Space Club at the Greenbelt Visitor Center.

40th Anniversary Picnic - May 5

Those attending the picnic will be treated to a 40-foot cake donated by the NASA Federal Credit Union. Some food items will be offered at prices not seen since the 1950's. The U.S. Army Drill Squad and Northwestern High School (Hyattsville, MD.) Marching Band will perform in a parade from the east to west campus. The Goddard Stamp Club and U. S. Postal Service employees will staff a booth offering a commemorative stamp collection.

For further information on planned events visit the 40th Anniversary website: <http://pao.gsfc.nasa.gov/gsf/40th/40th.htm>

Space Week
Water Rocket Contest

The Wallops Morale Activity Committee and Public Affairs Office are sponsoring a Water Rocket Contest during Space Week, May 3-7.

Teams of four will build an air pressure water rocket to be completed by April 29. The teams can represent people from your building, your floor, your organization (contract or civil service) your lunch group or car pool. Team uniforms are optional this year.



All entries will be placed in the cafeteria from 11:30 a.m. to 1 p.m. on April 30 to be judged in the first phase of the contest. Judging will be based on the following 50 points.

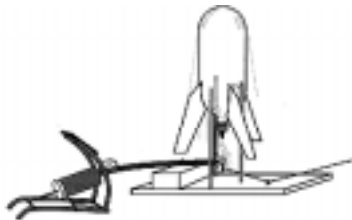
Overall Looks and Aesthetics Category (15 points)
During the first phase, employees will be allowed to cast votes (by secret ballot) for their favorite entry.

Stability During Flight (15 points)

Actual Altitude (10 points maximum)	
0-25 meters	5 points
26-35 meters	6 points
36-45 meters	7 points
46-55 meters	8 points
56-65 meters	9 points
65+ meters	10 points

Overall Flight (10 points)

Bonus for Working Parachute Recovery System (5 points)

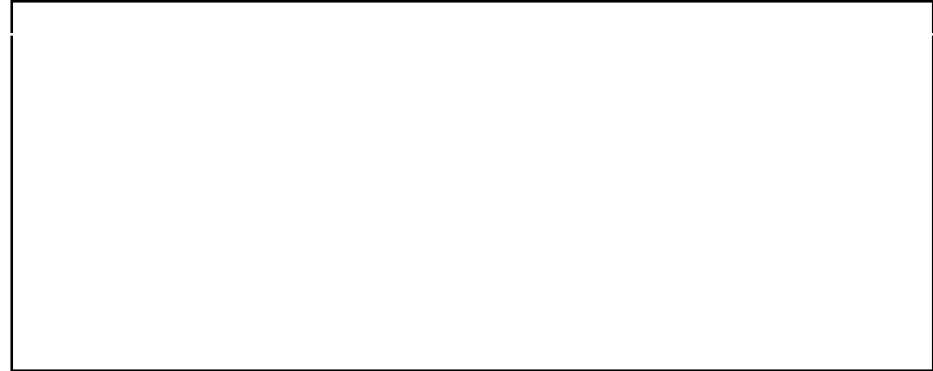


The launches are presently scheduled for May 4 from the softball field (between Bldg F-10 and the Main Gate). The launch window runs from 11:30 a.m. to 1 p.m. Should the launches be scrubbed due to bad weather, they will be rescheduled for May 7.

Top prize to the winning entry - bragging rights for one year and team congratulations on the marquee sign for one week.

Information on constructing an air pressure water rocket will be placed in the cafeteria entrance or can be obtained from our on-site experts Jan Neville, x1526 or Tony Goodyear, x1681.

April 14 is Earth Day - The Public Affairs Office will have a display at the Salisbury Zoo on April 17. Anyone interested in helping staff the exhibit is asked to call Tony Goodyear, x1681.



First Shipment of ODIN
Computers Arrives



Jim Brady (above foreground), Jerry Colley and Tom Clifford (right) Intellisource Information Systems and Enterprise Advisory Services, Inc. (EASI), working in the newly remodeled ODIN lab in Bldg. E-105 to configure the first group of PC's received at Wallops as part of NASA's ODIN contract.

The Wallops Information Services and Advanced Technology Branch (WISAT) has the lead in implementing the ODIN contract at Wallops and has

developed a process for supplying workstations and peripherals with minimal disruption to users' normal work schedules.

The ODIN lab has been specially modified to provide an efficient working area for the configuration of equipment provided under the contract.



WISAT is working with Wallops Logistics Team to provide a simplified method for excessing equipment replaced under the ODIN contract.

For more information call Scott Webb, x1407 or Debbie Watson, x2200.

First WEMA/MAA Monthly
Tailgate Sale for 1999

April 14
Starting at 11:30 a.m.

Flag Court Parking Lot
(across from the cafeteria)

This is a great opportunity for WEMA sponsored clubs to make money!!! Clubs can set up to sell anything but lunch.

American Federation
of Government Employees
Luncheon
April 13
Williamsburg Room
Bldg. E-2
11:30 a.m.

For Sale

Fiberglass Scout boat, 15-foot, double hole bottom, center console, 15 h.p. Tohatsu motor (15-20 hours on motor), galvanized trailer. Call (757) 787-8929.

Cirque Glidepoint (trackpad) Wave Keyboard. In the box with software, manual and adapters for all computer types. \$50.00. Call Pete Bradfield (410) 632-3026.

Volunteers Needed for "Take
Your Children to Work Day"

The Federal Women's Program Outreach Subcommittee is making plans now for "Take Our Children to Work Day" at Wallops planned for April 22. The committee is requesting volunteers in the following areas:

- * people who will provide afternoon transportation between activities
- * people who will show children their work
- * chaperones to accompany children in organized morning activities (8 a.m. to noon)
- * people to lead 30 to 60 minute activities with small groups of children
- * people to serve as points of contact for individual children with career questions (time for an afternoon visit).

The children are from 4th grade through 12th grade. Volunteers need approval from their supervisors. Anyone interested in helping with the event should call Donna Smith, x1346.

Inside Wallops is an official publication of Goddard Space Flight Center and is published by the Wallops Office of Public Affairs, Extension 1584, in the interest of Wallops employees.

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Photography
Printing

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Printing Management Office